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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,498	02/15/2001	Rolfe Erwin Buhrke	BUHRKE 10-4-1-9-5-3-8	3296

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EXAMINER

KHUONG, LEE T

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/784,498	BUHRKE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lee Khuong	2665	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/2/2002</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not understood how the interfaces in figure 2 can be achieved both as internal and external interface at the same time.

3. Claim 23 is rejected under 35 U.S.C. 112, first paragraph, because of a single means claim. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). See MPEP 2164.08(a)

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 4, 17, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "proxy signaling" is indefinite.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1, 2, 3, 6, 8, 9, 10, 11, 12, 14, 15, 16, 19, 20, 21, 22, 24, 25, 26, 29, 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Doshi, (5,483,527), et al, hereafter referred as Doshi.

**Regarding claim 1, 11 and 21,**

8. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system for managing an ATM bearer path between ATM endpoints, comprising: an ATM PAG (see figure 1, part 215, col. 3, lines 27 – 32 and lines 42 – 44, ***Voice over ATM***); a first ATM bearer connection termination in said ATM PAG for terminating a first bearer connection with a first ATM endpoint (see figure 6, col. 8, lines 36 – 43, ***hang-up for 1<sup>st</sup> connection between ATM switch 215 and unit S1***); a second ATM connection termination in said ATM PAG for terminating a second

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bearer connection with a second ATM endpoint (see figure 6, col. 8, lines 36 – 43, **hang up for 2<sup>nd</sup> connection between ATM switch 215 and unit S4**); a call control entity associated with said ATM PAG for communicating call control instructions to said ATM PAG, said call control instructions including instructions for logically concatenating said connections into an active ATM bearer path extending between said first ATM endpoint and said second ATM endpoint (see col. 4, lines 55 – 57, **signal processor**); a Media Access Gateway (MAG) in said ATM PAG for controlling the establishment of said first and second bearer connections (see col. 5, lines 2 – 9, **call processor**); an ATM switch in said ATM PAG for establishing said first and second bearer connections and moving bearer traffic ATM packet payloads over said active ATM bearer path (see figure 1, part # 215, col. 2, lines 61 – 67, col. 3, lines 1 – 2, **ATM switch**); and said MAG and said ATM switch being adapted to cooperate in the logical concatenation of said first and second bearer connections and the formation of said active ATM bearer path (see col. 1, lines 29 – 37, lines 54 - 66).

**Regarding claim 2, 19 and 29,**

9. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 1, 11 and 21, wherein said MAG and said ATM switch are co-located on a common integrated computer hardware platform and communicate via an internal interface to logically concatenate said connections (see figure 1, part 215, col. 4, lines 23 – 38, **ATM switch**).

**Regarding claim 3,**

10. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 1, wherein said MAG and said ATM switch are located on separate computer hardware platforms and communicate via an external interface to logically concatenate said connections (see figure 1, part 215, lines 23 – 38, **ATM switch**).

**Regarding claim 6, 12 and 22,**

11. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 1, 11 and 22, wherein said ATM switch is adapted to move bearer traffic ATM packet payloads between said first ATM endpoint to said second ATM endpoint by: receiving a bearer traffic ATM packet over said first or second bearer connections (see figure 1, col. 4, lines 23 – 45, lines 57 – 66; determining from the packet header of said bearer traffic ATM packet that said packet should be directed to said first or second ATM endpoints (see col. 4, lines 62 – 67, col. 7, lines 1 – 10, **ATM switching determining Virtual path connection**); and forwarding said bearer traffic ATM packet to said first or second ATM endpoints over said first or second bearer connections (see col. 5, lines 3 – 9, **call processor determines the destination path and forward the call on a selected trunk**).

**Regarding claim 8, 15 and 25,**

12. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 3, 12 and 21, wherein said system further includes one or more resource servers, interworking gateways, interworking units, or data termination systems (see figure 1, STM #210, col. 7, lines 23 – 25, *gateway to translate a call from STM to ATM format*).

**Regarding claim 9, 16 and 26,**

13. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 1, 12 and 21, wherein said system includes more than one ATM PAG and an ATM Access Network interconnecting said ATM PAGs (see figure 1, #215, #220, #210).

**Regarding claim 10, 20 and 30,**

14. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system in accordance with claim 1, 11 and 21, wherein ATM signaling messages to/from said PAG are intercepted by said ATM switch and forwarded to/from said MAG (see col. 4, lines 52 – 58).

**Regarding claim 14 and 24,**

15. Doshi teaches a system and program product in accordance with claim 12 and 21, further including program means for allowing a call control entity to serve as a call

control entity for said ATM PAG, said LAG and said TAG (see figure 1, #215-1, col. 4, lines 52 – 58).

**Regarding claim 31,**

16. Doshi teaches an ATM Packet Access Gateway (ATM PAG) for managing an ATM bearer path between ATM endpoints, comprising:  
a first ATM bearer connection termination for terminating a first bearer connection with a first ATM endpoint ;  
a second ATM connection termination for terminating a second bearer connection with a second ATM endpoint (see figure 6, col. 8, lines 36 – 43, **hang-up for 1<sup>st</sup> connection between ATM switch 215 and unit S1**); a Media Access Gateway (MAG) for controlling the establishment of said first and second bearer connections (see col. 5, lines 2 – 9, **call processor**); an ATM switch for moving bearer traffic ATM packet payloads over said active ATM bearer path (see figure 1, part # 215, col. 2, lines 61 – 67, col. 3, lines 1 – 2, **ATM switch**; and said MAG and said ATM switch being adapted to cooperate in the logical concatenation of said first and second bearer connections and the formation of said active ATM bearer path based on call control instructions received by said MAG from a call control entity (see col. 1, lines 29 – 37, lines 54 - 66).



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17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 4, 7, 13, 17, 23, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi in view of McDysan (6,226,260).

**Regarding claim 4, 17 and 27,**

19. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system set forth in the above rejections of claim 3, 17, 21.

Doshi failed to teach said external interface comprises UNI proxy signaling. However, said external interface is known in the art for interconnecting frame relay network end-user with ATM network.

McDysan teaches said external interface for the purpose of achieving an interconnection between a frame relay network end-user and an ATM network (see figure 1, col. 5, lines 7 – 12, col. 5, lines 64 – 67, **UNI 105**).

One skilled in the art would have recognized the advantage of using an external interface comprises UNI proxy signaling as taught by McDysan in the system of Doshi for the purpose of achieving an interconnection between a frame relay network end-user and an ATM network.

Thus, it would have been obvious to one skilled in the pertinent art at the time the invention was made to apply McDysan's teaching of said external interface comprises

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UNI proxy signaling in the Doshi's system with the motivation of interconnecting a frame relay network end-user with an ATM network.

**Regarding claim 7, 13 and 23,**

20. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system set forth in the above rejections of claim 1 and 11.

Doshi fails to teach said system includes an ATM Line Access Gateway (LAG) terminating plural TDM lines, an ATM Trunk Access Gateway (TAG) terminating plural TDM trunks, and an ATM Access Network interconnecting said ATM PAG, said LAG and said TAG. However, an ATM Access Network interconnecting said PAG, said LAG and said TAG is known in the art for interconnecting frame relay end users to an ATM network as evidenced by McDysan.

McDysan teaches an ATM Access Network interconnecting said PAG, said LAG and said TAG for the purpose of interconnecting frame relay end users to an ATM network (see figure 4, part #405, #410, col. 6, lines 38 – 58, **multiple lines, trunking**).

One skilled in the art would have recognized the advantage of using an ATM Access Network interconnecting said PAG, said LAG and said TAG as taught by McDysan in the system of Doshi for the purpose of achieving network-to-network interworking.

Thus, it would have been obvious to one skilled in the pertinent art at the time the invention was made to apply McDysan's teaching of an ATM Access Network

interconnecting said PAG, said LAG and said TAG in Doshi's system with the motivation of network-to-network interworking.

Claim 5, 18, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi.

**Regarding claim 5, 18 and 28,**

21. Doshi teaches a method, a computer program product and an ATM Packet Access Gateway (ATM PAG) system set forth in the above rejections of claim 3, 11, 21.

Doshi fails to teach said external interface comprises an application programming interface. However, it is obvious and well known to one skilled in the pertinent art at the time the invention was made that in order to convert one packet format to another packet format, the UNI or NNI external interfaces would require an API in order for the external interface to be able to function.

***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Doshi, (5,568,475) et al, discloses a system and method of an ATM network employing an out-of-band/in-band signaling network.

Arango, (6,724,747) et al, discloses a system and method for media connectivity over a packet-based network.

Li, (6,535,507) et al, discloses a system and method of address resolution for the transfer of synchronous transfer mode calls through multiple domains in a broadband data network.

Munoz, (6,741,585) et al, discloses a system and method of interworking of addressing in an internetwork.

Elliott, (6,614,781) et al, discloses a system and method for communicating voice and data over a packet-switched network.

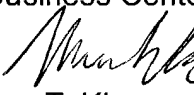
Li, (6,243,383) et al, discloses a system and method for ATM address resolution.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Khuong whose telephone number is 571-272-3157. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lee T. Khuong  
Examiner  
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